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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/699,048 | 10/31/2003 | Scott L. Vance | 9314-55 | 1189 |

7590 04/22/2005

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| EXAMINER |
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AL NAZER, LEITH A

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| ART UNIT | PAPER NUMBER |
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2821

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EX

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/699,048 | Applicant(s) VANCE, SCOTT L. | |
| | Examiner Leith A. Al-Nazer | Art Unit 2821 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-23, 27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16 and 18-23 is/are allowed.
- 6) ☒ Claim(s) 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>27 January 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0198293 to Sadler et al. in view of European Patent Application No. EP 1 128 466.

With respect to claim 27, Sadler teaches a multi-band antenna comprising a first planar inverted-F antenna branch configured to resonate in response to first electromagnetic radiation in a first frequency band; a second planar inverted-F antenna branch configured to resonate in response to second electromagnetic radiation in a second frequency band that is less than the first frequency band; and a parasitic

Art Unit: 2821

element coplanar with the second planar inverted-F antenna branch and configured to electromagnetically couple to the second planar inverted-F antenna branch. Claim 27 requires the parasitic element be a floating parasitic element that is ohmically isolated from the second planar inverted-F antenna branch. Such a configuration is known in the art, as is evidenced by Petteri (230 in figure 2). At the time of the invention, it would have been obvious to one having ordinary skill in the art to make the parasitic element of Sadler a floating, ohmically isolated parasitic element, as taught by Petteri. The motivation for doing so would have been to isolate the parasitic element from the first and second radiation elements at low frequencies.

With respect to claim 28, Petteri teaches the floating parasitic element being shaped to substantially follow an outer contour of the second planar inverted-F antenna branch.

Allowable Subject Matter

4. Claims 1-16 and 18-23 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest one or more of the limitations found in independent claims 1 and 15. With respect to independent claims 1 and 15, Sadler et al. fails to teach or suggest a floating parasitic element ohmically isolated from the second planar inverted-F antenna branch. Also, with respect to independent claims

Art Unit: 2821

1 and 15, Kadambi et al. fails to teach or suggest a floating parasitic element configured to resonate in the first frequency band. Finally, with respect to independent claims 1 and 15, Petteri et al. fails to teach or suggest a second planar inverted-F antenna branch. Therefore, independent claims 1 and 15, as well as all dependent claims, are allowable over the prior art of record.

Response to Arguments

6. Applicant's arguments with respect to claims 27 and 28 have been considered but are moot in view of the new ground(s) of rejection.

Communication Information

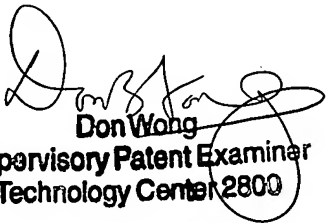
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leith A. Al-Nazer whose telephone number is 571-272-1938. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LA


Don Wong
Supervisory Patent Examiner
Technology Center 2800